

ABSTRACT

Non-spherical particles including a major dimension, for example flakes of material, are positioned with the major dimension oriented generally along an article surface in respect to which the particle is disposed. The particles, disposed in a fluid medium, the viscosity of which can be increased to secure the particles in position, are positioned using a force on the particles. The force includes torque force from a magnetic field, force from flow of the fluid medium, the force of gravity, and the force of surface tension alone or in combination with the force of gravity.